

Serial No. 10/717,966
Amdt. dated August 11, 2006
Reply to Office Action of May 17, 2006

Docket No. K-0552

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A washing machine, comprising:
 - a housing;
 - a tub installed in the housing and configured to store water ~~hold~~ washing fluid therein;
 - a drum rotatably installed in the tub and configured to hold ~~a~~ laundry items therein; and
 - a ~~water~~ fluid level sensing apparatus ~~for sensing a water~~ configured to sense a washing fluid level and to provide an appropriate ~~water~~ washing fluid level for each of a plurality of washing step, the water steps, the fluid level sensing apparatus comprising:
 - ~~an air chamber storing a predetermined amount of air to communicate~~
 - configured to be installed in communication with the tub ~~to have, wherein the air chamber is~~
 - configured to store a predetermined amount of air such that a pressure of the water work
 - washing fluid held in the tub imposes a corresponding pressure on the stored air;
 - a tube configured to be installed in communication with the air chamber;

a sensor ~~installed at~~ coupled to the tube and configured to sense the water
a washing fluid level by sensing an air pressure in the tube; and

a protecting member ~~for preventing~~ configured to prevent disassembly
~~and or~~ breakage of the air chamber and the tube.

2. (Currently Amended) The washing machine as claimed in claim 1, wherein the air chamber is configured to be connected to a drainpipe ~~connected to which extends from the tub~~ for discharging ~~the water~~ washing fluid.

3. (Currently Amended) The washing machine as claimed in claim 2, wherein the air chamber is configured to be connected to ~~an a drain~~ extension pipe ~~diverging which extends~~ from the drainpipe.

4. (Currently Amended) The washing machine as claimed in claim 1, wherein the tube is configured to be connected to an air extension pipe ~~extending which extends~~ from the air chamber ~~to be connected to the air chamber~~.

5. (Currently Amended) The washing machine as claimed in claim 1, wherein the protecting member ~~encloses~~ is configured to enclose a connecting portion formed between the air chamber and the tube.

6. (Currently Amended) The washing machine as claimed in claim 1, wherein the protecting member ~~is comprises~~ a rib extending from the air chamber, wherein the rib is configured to enclose a connecting portion formed between the air chamber and the tube.

7. (Currently Amended) The washing machine as claimed in claim 6, wherein the rib is substantially cylindrical.

8. (Currently Amended) The washing machine as claimed in claim 6, wherein the rib extends ~~higher than~~ beyond the connecting portion.

9. (Currently Amended) The washing machine as claimed in claim 1, wherein the protecting member ~~securely fixes~~ is configured to attach the air chamber to a peripheral part of the washing machine.

10. (Currently Amended) The washing machine as claimed in claim 9, wherein the protecting member comprises a boss ~~formed at~~ which extends from an outer surface of the tub and a flange ~~formed at~~ which extends from an outer surface of the air chamber, wherein the flange is configured to be coupled to the boss so as to attach the air chamber to the outer surface of the tub.

11. (Currently Amended) The washing machine as claimed in claim 1, further comprising a control apparatus ~~for controlling~~ configured to control a supply and a discharge of ~~the water by being provided with washing fluid based on the sensed water-washing fluid level~~ from the ~~water-fluid~~ level sensing apparatus.

12. (Currently Amended) An apparatus for sensing a ~~water-fluid~~ level of a washing machine, ~~the apparatus sensing the water level to provide each washing step with an appropriate water level,~~ the apparatus comprising:

an air chamber ~~storing a predetermined amount of air to communicate~~ configured to be installed in communication with the a tub to have which holds washing fluid, wherein the air chamber is configured to store a predetermined amount of air such that a pressure of the water work-washing fluid held in the tub imposes a corresponding pressure on the stored air;

a tube configured to be installed in communication with the air chamber;

a sensor ~~installed at~~ coupled to the tube and configured to sense ~~the water a~~
washing fluid level by sensing an air pressure in the tube; and

a protecting member ~~for preventing~~ configured to prevent disassembly ~~and or~~
breakage of the air chamber and the tube.

13. (Currently Amended) The apparatus as claimed in claim 12, wherein the air chamber is configured to be connected to a drainpipe ~~connected to which extends from the tub~~
for discharging ~~the water~~ washing fluid.

14. (Currently Amended) The apparatus as claimed in claim 13, wherein the air chamber is configured to be connected to ~~an a drain~~ extension pipe ~~diverging which extends~~
from the drainpipe.

15. (Currently Amended) The apparatus as claimed in claim 12, wherein the tube is configured to be connected to an air extension pipe ~~extending which extends~~ from the air chamber ~~to be connected to the air chamber~~.

16. (Currently Amended) The apparatus as claimed in claim 12, wherein the protecting member ~~is comprises~~ a rib extending from the air chamber and configured to enclose a connecting portion formed between the air chamber and the tube.

17. (Currently Amended) The apparatus as claimed in claim 16, wherein the rib is substantially cylindrical.

18. (Currently Amended) The apparatus as claimed in claim 16, wherein the rib extends ~~higher than~~ beyond the connecting portion.

19. (Currently Amended) The apparatus as claimed in claim 12, wherein the protecting member ~~securely fixes~~ is configured to attach the air chamber to a peripheral part of the washing machine.

20. (Currently Amended) The apparatus as claimed in claim ~~9~~ 19, wherein the protecting member comprises a boss ~~formed at the~~ which extends from an outer surface of a tub and a flange ~~formed at~~ which extends from an outer surface of the air chamber, wherein the flange is configured to be coupled to the boss.

21. (New) The apparatus as claimed in claim 20, wherein the protecting member further comprises a substantially cylindrical rib extending from an end of the air chamber which is configured to enclose a connecting portion formed between the air chamber and the tube.

22. (New) The apparatus as claimed in claim 20, wherein the boss and the flange are configured to prevent contact between the air chamber and the tub when coupled.

23. (New) The apparatus as claimed in claim 22, wherein the boss and the flange are configured to maintain a predetermined position of the air chamber relative to the tub when coupled.

24. (New) The apparatus as claimed in claim 22, wherein the boss and the flange are configured to maintain a predetermined distance between the air chamber and the tub when coupled.

25. (New) The washing machine as claimed in claim 4, wherein the air extension pipe extends from an end of the air chamber which is opposite an end of the air chamber connected to the tub by a drainpipe, wherein the air extension pipe and an end of the tube connected

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thereto form a connecting portion which is enclosed by a substantially cylindrical rib portion of the protecting member.

26. (New) The washing machine as claimed in claim 10, wherein the protecting member further comprises a substantially cylindrical rib extending from an end of the air chamber which is configured to enclose a connecting portion formed between the air chamber and the tube.,

27. (New) A washing machine comprising the apparatus of claim 12.